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CLAIMS

1. An isolated cDNA molecule that encodes a nuclear migration protein in human cells and is capable of complementing the *nudC* mutation of *A. nidulans*.
2. The cDNA molecule of claim 1, comprising the nucleotide sequence:

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1   CTAGAGTGCA GAGCTCCGGG ACGTGGATCG GAGCCGGCGC
   GATGGGCGGA GAGCAGGAGG
61  AGGAGCGGTT CGACGGCATG TTGCTGGCCA TGGCTCAGCA
   GCACGAGGGC GCGTGCAGG
10  121  AGCTTGTGAA CACCTTCTTC AGCTTCCTTC GACGCAAAC
   AGACTTTTTC ATTGGAGGAG
   181  AAGAAGGGAT GGCAGAGAAG CTTATCACAC AGACTTTCAG
   CCACCACAAT CAGCTGGCAC
   241  AGAAGACCCG GCGGGAGAAG AGAGCCCGGC AGGAGGCCGA
15  GCGGCGGGAG AAGGCGGAGC
   301  GGGCGGCCAG ACTGGCCAAG GAAGCCAAGT CAGAGACCTC
   AGGGCCCCAG ATCAAGGAGC
   361  TAACTGATGA AGAGGCAGAG AGGCTGCAGC TAGAGATTGA
   CCAGAAAAAG GATGCAGAGA
20  421  ATCATGAGGC CCAGCTCAAG AACGGCAGCC TTGACTCCCC
   AGGGAAGCAG GATACTGAGG
   481  AAGATGAGGA GGAAGATGAG AAGGACAAAG GAAAAGTAA
   GCCCAACCTA GGCAACGGGG
   541  CAGACCTGCC CAATTACCGC TGGACCCAGA CCCTGTCGGA
25  GCTGGACCTG GCGGTCCCTT
   601  TCTGTGTGAA CTTCCGGCTG AAAGGGAAGG ACATGGTGGT
   GGACATCCAG CGGCGGCACC
   661  TCCGGGTGGG GCTCAAGGGG CAGCCAGCGA TCATTGATGG
   GGAGCTCTAC AATGAAGTGA
30  721  AGGTGGAGGA GAGCTCGTGG CTCATTGAGG ACGGCAAGGT
   GGTGACTGTG CATCTGGAGA

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781 AGATCAATAA GATGGAGTGG TGGAGCCGCT TGGTGTCCAG
 TGACCCTGAG ATCAACACCA

841 AGAAGATTAA CCCTGAGAAT TCCAAGCTGT CAGACCTGGA
 CAGTGAGACT CGCAGCATGG

5 901 TGGAAAAGAT GATGTATGAC CAGCGACAGA AGTCCATGGG
 GCTGCCAACT TCAGACGAAC

961 AGAAGAAACA GGAGATTCTG AAGAAGTTCA TGGATCAACA
 TCCGGAGATG GATTTTTCCA

1021 AGGCTAAATT CAACTAGCCC CTGTTTTTTC CTCCTGAAC
 10 TCTTGGGGCT GAGCTGCAAC

1081 CACCCAACCTT TCTTTCCAC TCTTCTCTGG GACTTGTGGG
 CCTCAGGGCT TGGGGCAGGC

1141 ATGGGACTGG CCCAGGCACA CAGGTCCCGG GGCATCAGGA
 GAAAGGCTGG GTCTTGGGAC

15 1201 CTTGTCCTCC CCAGTTGGCC TACTGTTACA CATTAAAACG
 ATTTGCCCAG CTCAAAAAAA

1261 AAAAAAAAAA AAAAAAAAAA A

3. Use of an antisense molecule complementary to a human nuclear migration gene to inhibit expression of the gene in malignant cells in humans.
- 20 4. The use of an antisense molecule of claim 3, wherein the malignant cells are bone marrow-derived cells from persons with acute lymphoblastic or myelogenous leukemia.
5. The use of the antisense molecule of claim 3, wherein the human nuclear migration gene is symbolized *HnudC*.
- 25 6. The use of the antisense molecule of claim 3, wherein the antisense molecule is a phosphorothioate oligonucleotide to *HnudC* mRNA.
7. Use of a labeled DNA or RNA probe capable of hybridizing to at least a portion of a human nuclear migration gene from a sample of a patient with a disease, to detect increased expression of the gene which would indicate the presence of an aggressive disease requiring intense therapy.
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8. Use of ribozymes to inhibit the effects of a human nuclear migration gene on human cell proliferation by modulating production of HNUDC through interference with the mRNA produced by the gene.
9. The use of ribozymes of claim 8, wherein the human nuclear migration gene is *HnudC*.
10. Use of antibody directed to HNUDC quantitate HNUDC protein levels in malignant cells.
11. The use of claim 10, wherein malignant cells are selected from the group consisting of acute lymphoblastic and myelogenous leukemia cells.
12. The use of claim 10, wherein after quantitating the HNUDC protein levels, the levels are compared to standards to determine the clinical stage of the malignancy.
13. An expression vector comprising at least a portion of a human nuclear migration gene, and a suitable promoter.
14. The vector of claim 13, wherein the suitable promoter is a tissue specific promoter.
15. The vector of claim 12, wherein the expression is inducible.
16. An antibody to a fragment of a conserved sequence of the NUDC protein.
17. The antibody of claim 16, wherein the conserved amino acid sequence is MVEKMMYDOROK.
18. Use of an antibody to human NUDC to monitor expression of the NUDC protein in human cells.
19. Use of an antibody to human NUDC to detect patients with leukemia.
20. Use of an antibody to human NUDC in bone marrow to differentiate high risk from standard ALL patients.
21. An inhibitor of the DNA molecule as claimed in any one of claims 1 or 2, for use as a pharmaceutical.